



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ :	A1	(11) International Publication Number: WO 99/03078
G07F 17/34		(43) International Publication Date: 21 January 1999 (21.01.99)

(21) International Application Number: PCT/AU98/00525

(22) International Filing Date: 8 July 1998 (08.07.98)

(30) Priority Data:
 PO 7780 8 July 1997 (08.07.97) AU
 PO 9090 9 September 1997 (09.09.97) AU

(71) Applicant (for all designated States except US): ARISTOCRAT
 LEISURE INDUSTRIES PTY. LTD. [AU/AU]; 85-113
 Dunning Avenue, Rosebery, NSW 2018 (AU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): OLIVE, Scott [AU/AU];
 1/130 Wanganella Street, Balgowlah, NSW 2095 (AU).

(74) Agent: F.B. RICE & CO.; 605 Darling Street, Balmain, NSW
 2041 (AU).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR,
 BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE,
 GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ,
 LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
 MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,
 TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO
 patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian
 patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
 patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
 IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF,
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

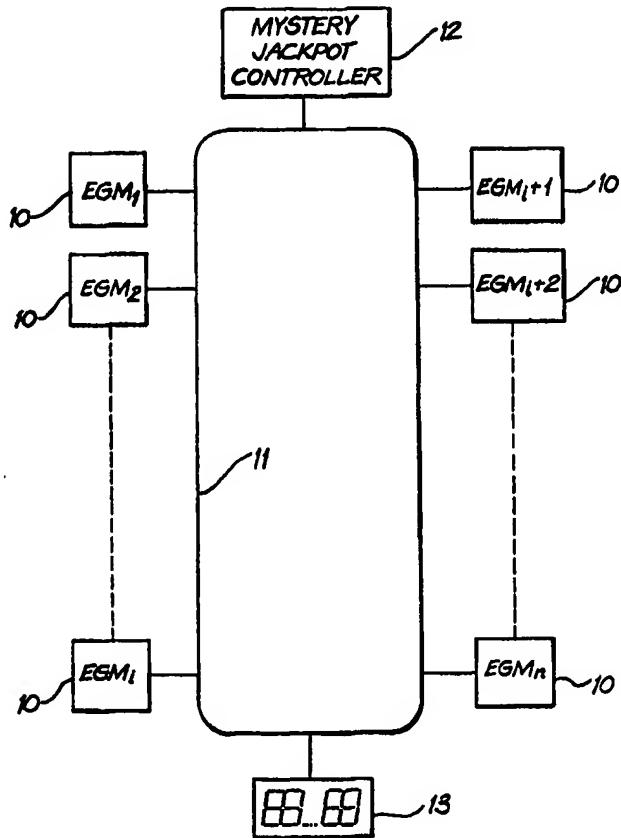
Published

With international search report.

(54) Title: SLOT MACHINE GAME AND SYSTEM WITH IMPROVED JACKPOT FEATURE

(57) Abstract

A plurality of electronic gaming machines (10) are connected to a network (11), to which a feature jackpot controller (12) and display means (13) are also connected. Each of the electronic gaming machines (10) are provided with a network interface arranged to provide a signal onto the network (11) on each occurrence of an operation of a respective machine and the jackpot controller (12) is arranged to receive each of the machine operation signals and to increment the value of a random jackpot prize on the occurrence of each of these operation signals. Prior to each game, the gaming machine (10) selects a random number from a range of numbers and during each game, the machine allocates the first n numbers in the range, where n is the number of credits bet by the player in that game. At the end of the game, the randomly selected number is compared with the numbers allocated to the player and if a match occurs the particular machine is switched into a feature game mode in which a jackpot game is played for all or part of the incremental jackpot prize.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

Slot machine game and system with improved jackpot feature

Introduction

5 The present invention relates to apparatus for use with a system of linked poker machines and in particular the apparatus provides an improved jackpot mechanism for use with such a poker machine system.

Background of the Invention

10 Many schemes have been devised in the past to induce players to play slot machines including schemes such as specifying periods during which jackpot prizes are increased or bonus jackpots paid. Other schemes involve 15 awarding an additional prize to a first player to achieve a predetermined combination on a poker machine. These methods, while effective, add to club overheads because of the need for additional staff to ensure that the scheme is operated smoothly.

15 More recently, with the advent of poker machines linked through electrical networks it has been possible to automatically generate jackpot prizes on the basis of information received from the machines being played which are connected to the system and one such prior art arrangement, 20 commonly known as "Cashcade™", counts turnover on all machines in the network, increments a prize value in accordance with the turnover and pays the jackpot prize when the count reaches some predetermined and randomly selected number. In a more recent prior art arrangement, each game played on each machine in a gaming system is allocated a randomly selected 25 number and the prize is awarded to a machine when the game number it is allocated matches a preselected random number.

30 In another recent prior art arrangement, the winning machine is selected by randomly selecting a number at a point in time and decrementing the number as games played on the system are counted until the number is decremented to zero at which time the game (or associated machine) causing the final decrement is awarded the jackpot.

35 With some prior art combination based trigger arrangements there is a serious disadvantage in that the player betting a single token per line, is just as likely to achieve a jackpot as the player playing multiple tokens per line. This has the effect of encouraging players playing for the bonus jackpot to bet in single tokens, rather than betting multiple tokens per game.

Jackpot games have traditionally been popular in Casinos. However, in their conventional format these games have inherent limitations:

(i) Games which use specific combinations of symbols to trigger jackpots are perceived by many players as being unwinnable. The games are typically designed in such a way that the big jackpots should not be won until large amounts are accumulated. With such low frequency the jackpots are never seen to be won by most players. Anecdotal evidence suggests that many players have learnt to disregard the chance of winning the major jackpots and are realistically playing for the lesser jackpots (ie the minor and mini jackpots). The increasing popularity of small mystery jackpots with higher frequencies of occurrence tends to support this argument;

(ii) Due to the increasing demand of players for a more complex and diverse game range, conventional jackpot games with combination triggers have become superseded. However, it is extremely complex to develop a wide variety of combinations which support both a feature game and mathematically exact jackpot triggers;

(iii) Typically, it would be expected that the game return (RTP) is independent of the number of coins bet per line. With conventional progressive jackpot games though, increasing the credits bet per line creates a relative disadvantage as far as RTP is concerned. Lets say the start-up amount for a feature jackpot is \$10000. A player who is playing 1 credit per line has a chance for \$10000 for each credit played, whereas a player playing 5 credits per line only has a chance for \$2000 for each credit played. This creates a scale of diminishing returns. The smart player who gambles for the feature jackpot only, will always cover all playlines, but will only bet 1 credit per line because the prize paid for the feature jackpot is the same irrespective of the bet. This is supported by data collected from casinos,

(iv) Typical combination triggered progressive jackpots have fixed hit rates which removes from the operator's control the ability to vary jackpot frequency.

These arrangements have been in use in the State of New South Wales and in other jurisdictions for a considerable period of time, however, as with other aspects of slot machine games, players become bored with such arrangements and new and more innovative schemes become necessary in order to stimulate player interest.

In this specification, the term "combinations" will be used to refer to the mathematical definition of a particular game. That is to say, the combinations of a game are the probabilities of each possible outcome for that game.

5 **Summary of the Invention**

According to a first aspect the present invention provides a random prize awarding system associated with a gaming console, the console being arranged to offer a feature outcome when a game has achieved a trigger condition, the console including trigger means arranged to test for a trigger condition and to initiate the feature outcome when the trigger condition occurs, the trigger condition being determined by an event having a probability related to credits bet per game on the console.

10 According to a second aspect, the present invention provides a random prize awarding system associated with a network of gaming consoles, the system being arranged to offer a feature outcome on a particular console when a trigger condition occurs as a result of a game being played on the respective console the prize awarding system including trigger means arranged to test for a trigger condition and to initiate the feature outcome on the respective console when the trigger condition occurs, the trigger condition being determined by an event having a probability related to credits bet per game on the respective console.

15 According to a third aspect, the present invention provides a gaming console including a random prize awarding feature, the gaming console being arranged to offer a feature outcome when a game has achieved a trigger condition, the console including trigger means arranged to test for the trigger condition and to initiate the feature outcome when the trigger condition occurs, the trigger condition being determined by an event having a probability related to credits bet per game on the console.

20 According to a fourth aspect, the present invention provides a method of awarding a random prize associated with a gaming console arranged to offer a feature outcome when a game has achieved a trigger condition, the method including testing for a trigger condition and initiating the feature outcome when the trigger condition occurs, the trigger condition being determined by an event having a probability related to credits bet per game on the respective console.

Preferably, the trigger condition is determined by an event having a probability related both to expected turnover between consecutive occurrences of the trigger condition, on the respective console and the credits bet on the respective game.

5 In a preferred embodiment of the invention, the trigger condition is determined by selecting a random number from a predetermined range of numbers to be associated with each bought game, and for each credit bet on the respective game, allotting to the game, one or more numbers from the predetermined range of numbers, and in the event that one of the numbers allotted to the player matches the randomly selected number, indicating that 10 the trigger condition has occurred.

15 In one embodiment, one or more gaming consoles are connected in a gaming network, each of the consoles including signal output means arranged to produce an output signal in response to operation of the respective console, such that a central feature jackpot system connected to the network provides an incrementing jackpot which is increased in response to signals from the consoles connected to the network.

20 Preferably also, the console is arranged to play a first main game and the feature outcome initiated by the trigger condition is a second feature game.

The function of triggering a feature jackpot game may either be performed by a central feature game controller or may be performed within each console in the system.

25 In the preferred embodiment, the predetermined range of numbers is determined as a function of expected turnover between consecutive occurrences of the trigger condition, expected jackpot amounts and jackpot frequencies and will equal the expected average turnover per machine between successive initiations of progressive jackpot games divided by the credit value for that machine. For example, if the progressive jackpot is to be 30 played for an average every \$5,000 of turnover played and the credit value on the machine is \$0.05, then the number range will be 1 to 100,000 (i.e. $5,000/0.05$). In the preferred embodiment, the gaming machine will allocate the lowest numbers in the range to the player such that if the player plays 20 credits he will be allocated numbers 1-20 giving him a 1 in 5,000 chance of 35 triggering a jackpot feature game.

Alternatively, the number range can be set to the average expected turnover between jackpot occurrences expressed in cents (500,000 in the above example), in which case the numbers allocated to the player, will be proportional to his total wager expressed in cents (i.e. 1-100 in the above example).

Preferably, the feature game is a simplified game having a higher probability of success than the first game. In a particularly preferred embodiment, the second game is a spinning reel game having a reduced number of symbols on each reel and a jackpot is activated if after spinning the reels a predetermined combination of symbols appears on the win line of each reel.

In one particular example, the second screen game is a five reel game with two different symbols on each reel. The symbols may be of equal value and equally weighted (i.e. same number of instances) on each reel or alternatively, the prizes might be of different values (eg: different fractions of the pool) and the symbols have different weightings on at least one reel.

Preferably, the prize awarded in a jackpot game by the system of the present invention, is a monetary amount the value of which is incremented with each game played on each gaming machine or console in the system. Alternatively, the incrementation can take place on a per token bet basis.

Where used above, the term 'console' is used to indicate a gaming machine, a gaming terminal or other device arranged to be connected to a communications system and to provide a user gaming interface. In the following description, examples are given which are applicable to traditional slot machines, however the invention should be taken to include gaming systems which include user interfaces other than traditional slot machines.

Brief Description of the Drawings

Embodiments of the invention will now be described by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a block diagram of a network of electronic gaming machines to which a mystery jackpot controller according to the present invention is connected;

Figure 2 is a flow chart showing a game arrangement according to the invention; and

Figure 3 shows an example of a 5 reel by 3 row window display.

Detailed Description of the Preferred Embodiments

In a preferred embodiment of the invention, a new jackpot trigger mechanism provides the Casino operator with a far higher degree of flexibility. Unlike conventional combination triggered jackpots, the jackpots here are won from a feature game. The feature game is triggered randomly as a function of credits bet per game. When a feature is triggered, a feature game appears. Each jackpot can only be won from this feature game. During the feature game a second set of reel strips appears and a "spin and hold" feature game commences. The feature prize score is calculated by the total of the points appearing on the centre line of all 5 reels.

10 Feature jackpots in this format exhibit significant differences over previous jackpot systems:

(i) A jackpot game is provided which is compatible with any existing game combination within an installation independent of the platform, denomination or type of game (eg, slot machines, cards, keno, bingo or pachinko). This will allow for the linking of combinations between game type, platform type and denomination. Using this system, jackpot games can now be developed using specific combinations for the base game which were previously unsuitable for Link Progressive Systems. These games will compete with the appeal of the latest games on the market.

15 (ii) There is no longer a need to develop mathematically exact combinations in the base game.

(iii) Unlike the multiplier game in combination triggered jackpot embodiments, the present invention provides a direct relationship between the number of credits bet and the probability of winning the jackpot feature game on any one bought game. Betting 10 credits per line will produce ten times as many hits into the feature game than betting 1 credit per line. This is achieved by using a jackpot trigger which is directly related to the wager bet on a respective game and the turnover, instead of using conventional combination triggers.

20 (iv) Jackpot hit rates can now be changed without making changes to the base game. This was previously not possible using combination triggered jackpots.

25 (v) The jackpot feature system can be used across a wide-area-network (WAN), local-area-network (LAN), used as a stand-alone game

independent of a network or used with a mystery jackpot. Flexibility is available to change combinations at will.

Referring to Figure 1 a plurality of electronic gaming consoles 10 are connected to a network 11, to which a feature jackpot controller 12 and display means 13 are also connected.

Each of the electronic gaming consoles 10 are provided with a network interface arranged to provide a signal onto the network 11 on each occurrence of an operation of a respective console and the jackpot controller 12 is arranged to receive each of the console operation signals and to increment the value of a random jackpot prize on the occurrence of each of these operation signals.

A flow chart for a prize awarding algorithm is illustrated in Figure 2.

Referring to the algorithm of Figure 2, machine contributions go into the prize pool as with known prior art jackpot systems, while the overhead display shows the incrementing prize value.

In the EGM, an average value of machine turnover between jackpot hits, is programmed and is used to randomly generate trigger data for the jackpot feature games. In step 20 of the algorithm of Figure 2, the actual number range and therefore probability of a feature jackpot game being awarded will depend upon the value of a credit in the particular machine and is calculated by dividing the turnover value by the value of a credit (eg., $\$5000/\$0.05 = 100,000$). The average turnover value is fixed for the EGMs and the random number generator is initialised (see step 20) at startup to generate numbers from the preprogrammed range determined from that value.

For every game that is played, a random trigger value is selected (see step 21) in the preprogrammed range as determined from the average turnover value. When the game is commenced, it is then reported (see step 22) to the controller, which allocates a contribution to the prize pool. Each game is also allotted (see step 23) numbers from the same number range that from which the random number was selected, one number in the range being allotted for each credit bet such that the player's probability of being awarded a jackpot feature game is proportional to the bet.

The previously selected random number is then used as a trigger value and compared with the values allotted to the player, if there is a match (see step 24) between the trigger value and the player values, the player is given

an opportunity to play a jackpot feature game (see step 25). Alternatively, at step 23, a number is allocated which is equal to, or proportional to the number of credits bet in the respective game and in step 24, the trigger value is compared with the single player value and a jackpot feature awarded if the trigger value is less than or equal to the player value. It will be appreciated that this alternative arrangement is mathematically equivalent to the previously described arrangement, the range of numbers below the allotted number in the alternative arrangement being equivalent to the set of allotted numbers in the previously described arrangement.

In the preferred embodiment, a prize is always awarded in the jackpot feature game; the feature game being used to determine the size of the prize to be awarded (see step 27). The winning machine is then locked up (see step 28) and the controller awaits an indication that the prize has been paid before allowing the machine to be unlocked (see step 29). In some embodiments, the machine will not be locked up in steps 28 and 19, but instead the prize will simply be paid and the program will return to step 21. The machine then returns to step (see step 21) and commences a new game. If the trigger value does not match (see step 27) then there is no feature game awarded for that bought game and the machine returns to step (see step 22) and waits for the next game to commence.

By way of example, a feature game might be triggered by an EGM every \$5000 of turnover played, which is equivalent to 100,000 credits on a \$0.05 machine. This is referred to as the jackpot feature game hit rate in credits. A random number is generated within a prescribed range of numbers at the EGM at the commencement of each bought game. The prescribed range of numbers is determined by the jackpot feature game hit rate which has been determined previously, from typical values of casino turnover, expected jackpot amounts and jackpot frequencies. The prescribed range in this example is therefore 1 to 100,000 and before the commencement of each bought game a random number is generated within this range.

A bet of 20 credits will result in the numbers between 1 and 20 (inclusive) being allotted to the game (note that statistically it does not matter if the numbers are randomly selected or not or allotted as a block or scattered, the probability of a feature game being awarded is unchanged). If the number 7 is produced by the random number generator, then the feature game will be triggered. If any number between 21 and 100,000 is produced

by the random number generator, the feature game will not be triggered. Similarly, a bet of 200 credits will result in the numbers between 1 and 200 (inclusive) being allotted to the game. If any number between 1 and 200 is produced by the random number generator, then the feature game will be triggered. If any number between 201 and 100,000 is produced by the random number generator, the feature game will not be triggered.

5 The example below has been developed using example turnover data. A trigger of the second screen feature game is expected every \$5000 of turnover (ie, 100000 credits on a \$0.05 machine). Increasing the number of credits bet increases the chance of triggering the feature on any bought game.

10

Number of credits bet	Range numbers assigned	Games to hit	Bet/game	Turnover of EGM since last hit (\$)
1	1 to 1	100000	\$0.05	\$5000
2	1 to 2	50000	\$0.10	\$5000
3	1 to 3	33333.33	\$0.15	\$5000
5	1 to 5	20000	\$0.25	\$5000
10	1 to 10	10000	\$0.50	\$5000
15	1 to 15	6666.66	\$0.75	\$5000
20	1 to 20	5000	\$1.00	\$5000
25	1 to 25	4000	\$1.25	\$5000
30	1 to 30	3333.33	\$1.50	\$5000
40	1 to 40	2500	\$2.00	\$5000
45	1 to 45	2222.22	\$2.25	\$5000
50	1 to 50	2000	\$2.50	\$5000
60	1 to 60	1666.66	\$3.00	\$5000
75	1 to 75	1333.33	\$3.75	\$5000
100	1 to 100	1000	\$5.00	\$5000
150	1 to 150	666.66	\$7.50	\$5000
200	1 to 200	500	\$10.00	\$5000

15

Preferably, when a jackpot feature game is triggered, all players are alerted by a jackpot bell that a possible grand jackpot is about to be played for. This is done so that all players share in the experience of a jackpot win. Anecdotal evidence of players watching feature games being played in

Australian casinos suggests that the drawing power of such games is immense.

Players are alerted by the jackpot bell instantaneously at any point during a game, but the feature game will not appear until the current game (including base game features) are completed.

In this embodiment the feature game appears with the new reel strips already spinning and accompanying feature game tunes playing. The player stops the reels spinning by pressing the corresponding playline buttons in order. The feature prize score is calculated by the total of the points appearing on the centre line of all 5 reels. Across the top of the screen, a sum of the scores is displayed.

10 The 4 feature prize meters in descending order of value are:

- (i) Grand Feature Prize. A score of ≥ 100 wins the grand feature jackpot;
- (ii) Major Feature Prize. A score of 90-99 (inclusive) wins the major feature jackpot;
- (iii) Minor Feature Prize. A score of 80-89 (inclusive) wins the minor feature jackpot;
- (iv) Mini Feature Prize. A score of ≤ 79 wins the mini feature jackpot.

20 By way of example, referring to Figure 3, a 5 reel by 3 row window is displayed. If the reels of the feature game stop on the numbers shown in Figure 3, then the progressive jackpot won is the sum of the numbers on the centre line i.e. $12 + 10 + 18 + 13 + 22 = 75$ which is within the range for the mini feature jackpot.

25 The instant the feature game is completed and the sum of scores from all 5 reels is shown, the feature jackpot screen and signs display which jackpot has been won. This celebration of the jackpot win is conducted in a traditional manner (i.e. flashing displays, jackpot alarms, music etc).

30 As the time between jackpot game awards is related to turnover, the number of jackpot games played by a player between feature games and hence their chance of winning is directly related to the size of each bet on each game played.

- (1) All machines on the link have a feature game, be it a second screen animation game or a second set of reel strips.
- (2) The link has a number of feature jackpot meters (up to 8). All feature jackpots may be linked.

(3) The feature game is activated as a function of machine turnover. This means that on average the feature game will occur one in, for example every \$5000.00. There are a number of advantages of activating the feature game on turnover. For example, it enables for the first time, a relatively simple mechanism for allowing mixed denomination on a link. The feature game gives the player the chance of winning one of the available feature jackpots if a certain outcome appears. For example, a new set of reel strips might appear with only 2 or 4 different symbols: Jackpot 1, Jackpot 2, or (Jackpot 1, Jackpot 2, Jackpot 3, Jackpot 4). The first time 5 of the same appear on the centre line the stated feature jackpot is won.

10 (4) Another advantage of using a random trigger for a feature game, is that it can be applied to any game.

15 It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive.

CLAIMS:

1. A random prize awarding system associated with a gaming console, the console being arranged to offer a feature outcome when a game has achieved a trigger condition, the console including trigger means arranged to test for the trigger condition and to initiate the feature outcome when the trigger condition occurs, the trigger condition being determined by an event having a probability related to desired average turnover between successive occurrences of the trigger conditions on the console.
5
2. The system of claim 1, wherein the trigger condition is determined by an event having a probability related both to expected turnover between successive occurrences of the trigger conditions on the console and the credits bet on the respective game.
10
3. The system of claim 1 or 2, wherein the console is arranged to play a main game, during which testing for the trigger condition will occur, and the feature outcome initiated by the trigger condition is the awarding of one or more feature games.
15
4. The system of claim 3, wherein the main game is a standard game normally offered on the console and each feature game is a jackpot game associated with a special jackpot prize.
20
5. The system as claimed in any one of claims 1 to 4, wherein the trigger condition is determined by selecting a random number from a predetermined range of numbers to be associated with each main game, and allotting to the game a set of numbers selected from the predetermined range of numbers, the size of the set of allotted numbers being related to the wager bet on the respective game, and in the event that one of the numbers allotted to the game matches the randomly selected number, indicating that the trigger condition has occurred.
25
6. The system as claimed in any one of claims 1 to 5, wherein the trigger condition is determined by selecting a random number from a predetermined range of numbers to be associated with each main game, and allotting to the game a number in the set of numbers, the allotted number being proportional to the wager and in the event that the allotted number is greater than or equal to the randomly selected number, indicating that the trigger condition has occurred.
30
7. The system as claimed in any one of claims 1 to 6, wherein the trigger condition is determined by selecting a random number from a predetermined
35

range of numbers to be associated with each main game, and allotting to the game a number in the set of numbers, the allotted number being inversely proportional to the wager and in the event that the allotted number is greater than or equal to the randomly selected number, indicating that the trigger

5 condition has occurred.

8. The system of claim 6 or 7, wherein the predetermined random number range is related to the desired average turnover on the console between successive initiations of the feature game divided by the credit value for that console.

10 9. The system of claim 7 or 8, wherein the set of allotted numbers includes a number for each credit bet on the game.

10. The system of claim 5, wherein the predetermined random number range is equal to the desired average turnover on the console between successive initiations of the feature game expressed as a currency

15 denomination.

11. The system of claim 10, wherein the currency denomination is cents.

12. The system of claim 10 or 11, wherein the set of allotted numbers includes one number for each unit of the currency denomination wagered on the game.

20 13. The system as claimed in any one of the preceding claims wherein the gaming console allots a block of numbers within the predetermined range to the game.

14. The system as claimed in claim 13, wherein the gaming console allots the block of numbers containing the lowest numbers in the predetermined range to the game.

25 15. The system as claimed in any one of the preceding claims wherein the feature outcome is a simplified game having a higher probability of winning a major prize than in the main game.

30 16. The system as claimed in claim 15, wherein the feature game provides a plurality of pseudo-reels with a restricted number of different symbols on each reel and a jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

35 17. The system as claimed in claim 14, wherein the feature game provides 3, 4, or 5, 6 or 16 pseudo-reels with 2, 3 or 4 different symbols on each reel and a jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

18. The system as claimed in claim 16 or 17, wherein the symbols are of equal value and equally weighted on each reel.

19. The system as claimed in any one of the preceding claims wherein the prizes are of unequal value and the symbols have different weightings on at least one reel.

5 20. The system as claimed in any one of the preceding claims wherein one or more gaming consoles are associated with the system, each of which is connected to a gaming network and includes signal output means arranged to produce an output signal in response to operation of the respective console, such that a central feature jackpot system connected to the network provides an incrementing jackpot pool which increases in response to signals from the connected consoles and the feature jackpot game on each machine awards a jackpot drawn from the jackpot pool.

10 21. The system as claimed in claim 20, wherein the jackpot pool is incremented with each game played on each gaming console in the system.

15 22. The system as claimed in claim 20, wherein the jackpot pool is incremented with each token bet on each game played on each gaming console in the system.

20 23. A random prize awarding system associated with a gaming console, the console being arranged to offer a feature outcome when a game has achieved a trigger condition, the console including trigger means arranged to test for the trigger condition and to initiate the feature outcome when the trigger condition occurs, the trigger condition being determined by an event having a probability related to the credits bet per game on the console.

25 24. The system of claim 23, wherein the trigger condition is determined by an event having a probability related both to turnover on the console and the credits bet on the respective game.

30 25. The system of claim 23 or 24, wherein the console is arranged to play a main game, during which testing for the trigger condition will occur, and the feature outcome initiated by the trigger condition is the awarding of a feature game.

26. The system of claim 24, wherein the main game is a standard game normally offered on the console and the feature game is a jackpot game associated with a special jackpot prize.

35 27. The system as claimed in any one of claims 23 to 26, wherein the trigger condition is determined by selecting a random number from a

predetermined range of numbers to be associated with each main game, and allotting to the game a set of numbers selected from the predetermined range of numbers, the size of the set of allotted numbers being related to the wager bet on the respective game, and in the event that one of the numbers allotted to the game matches the randomly selected number, indicating that the trigger condition has occurred.

28. The system of claim 27, wherein the predetermined random number range is related to the desired average turnover on the console between successive initiations of the feature game divided by the credit value for that console.

10 29. The system of claim 27 or 28, wherein the set of allotted numbers includes a number for each credit bet on the game.

30. The system of claim 27, wherein the predetermined random number range is equal to the desired average turnover on the console between successive initiations of the feature game expressed as a currency 15 denomination.

31. The system of claim 30, wherein the currency denomination is cents.

32. The system of claim 30 or 31, wherein the set of allotted numbers includes one number for each unit of the currency denomination wagered on 20 the game.

33. The system as claimed in any one of claims 23 to 32, wherein the gaming console allots a block of numbers within the predetermined range to the game.

34. The system as claimed in claim 33, wherein the gaming console allots 25 the block of numbers containing the lowest numbers in the predetermined range to the game.

35. The system as claimed in any one of claims 23 to 34, wherein the feature outcome is a simplified game having a higher probability of a major prize being won than in the main game.

30 36. The system as claimed in claim 35, wherein the feature game provides a plurality of pseudo-reels with a restricted number of different symbols on each reel and a jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

37. The system as claimed in claim 35, wherein the feature game provides 35 3, 4, or 5 pseudo-reels with 2, 3 or 4 different symbols on each reel and a

jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

38. The system as claimed in claim 36 or 37, wherein the symbols are of equal value and equally weighted on each reel.

5 39. The system as claimed in any one of claims 23 to 38, wherein the prizes are of unequal value and the symbols have different weightings on at least one reel.

40. The system as claimed in any one of claims 23 to 39, wherein one or more gaming consoles are associated with the system, each of which is connected to a gaming network and includes signal output means arranged to produce an output signal in response to operation of the respective console, such that a central feature jackpot system connected to the network provides an incrementing jackpot pool which increases in response to signals from the connected consoles and the feature jackpot game on each machine awards a jackpot drawn from the jackpot pool.

10 41. The system as claimed in claim 40, wherein the jackpot pool is incremented with each game played on each gaming console in the system.

42. The system as claimed in claim 40, wherein the jackpot pool is incremented with each token bet on each game played on each gaming console in the system.

20 43. A gaming console including a random prize awarding feature, the console being arranged to offer a feature outcome when a game has achieved a trigger condition and including trigger means arranged to test for the trigger condition and to initiate the feature outcome when the trigger condition occurs, the trigger condition being determined by an event having a probability related to desired average turnover between successive occurrences of the trigger conditions on the console.

25 44. The system of claim 43, wherein the trigger condition is determined by an event having a probability related both to turnover on the console and the credits bet on the respective game.

30 45. The gaming console of claim 43 or 44, wherein the console is arranged to play a main game, during which testing for the trigger condition will occur, and the feature outcome initiated by the trigger condition is the awarding of a feature game.

46. The gaming console of claim 45, wherein the main game is a standard game normally offered on the console and the feature game is a jackpot game associated with a special jackpot prize.

47. The gaming console as claimed in any one of claims 45 to 46, wherein the trigger condition is determined by selecting a random number from a predetermined range of numbers to be associated with each main game, and allotting to the game a set of numbers selected from the predetermined range of numbers, the size of the set of allotted numbers being related to the wager bet on the respective game, and in the event that one of the numbers allotted to the game matches the randomly selected number, indicating that the trigger condition has occurred.

48. The gaming console of claim 47, wherein the predetermined random number range is related to the desired average turnover on the console between successive initiations of the feature game divided by the credit value for that console.

49. The gaming console of claim 47 or 48, wherein the set of allotted numbers includes a number for each credit bet on the game.

50. The system of claim 47, wherein the predetermined random number range is equal to the desired average turnover on the console between successive initiations of the feature game expressed as a currency denomination.

51. The system of claim 50, wherein the currency denomination is cents.

52. The system of claim 50 or 51, wherein the set of allotted numbers includes one number for each unit of the currency denomination wagered on the game.

53. The gaming console as claimed in any one of claims 43 to 52 wherein the gaming console allots a block of numbers within the predetermined range to the game.

54. The gaming console as claimed in claim 53, wherein the gaming console allots the block of numbers containing the lowest numbers in the predetermined range to the game.

55. The gaming console as claimed in any one of claims 43 to 54, wherein the feature outcome is a simplified game having a higher probability of success than the main game.

56. The gaming console as claimed in claim 55, wherein the feature game provides a plurality of pseudo-reels with a restricted number of different

symbols on each reel and a jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

5. 57. The gaming console as claimed in claim 56, wherein the feature game provides 3, 4, or 5 pseudo-reels with 2, 3 or 4 different symbols on each reel and a jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

58. The gaming console as claimed in claim 56 or 57, wherein the symbols are of equal value and equally weighted on each reel.

10 59. The gaming console as claimed in any one of claims 43 to 58, wherein the prizes are of unequal value and the symbols have different weightings on at least one reel.

15 60. The gaming console as claimed in any one of claims 43 to 59, wherein the console is arranged to be connected to a gaming network and includes signal output means arranged to produce an output signal in response to operation of the console, such that a central feature jackpot system connected to the network provides an incrementing jackpot pool which increases in response to signals from the connected consoles and the feature jackpot game is arranged to award a jackpot prize drawn from the jackpot pool.

20 61. A method of awarding a random prize on a gaming console, the console being arranged to offer a feature outcome when the game has achieved a trigger condition, the method including testing for the trigger condition and when the trigger condition occurs offering the feature outcome, the trigger condition being determined by an event having a probability related to desired average turnover between successive 25 occurrences of the trigger condition on the respective console.

62. The system of claim 61, wherein the trigger condition is determined by an event having a probability related both to turnover on the console and the credits bet on the respective game.

30 63. The method of claim 62, wherein the console is arranged to play a main game, during which testing for the trigger condition will occur, and the feature outcome initiated by the trigger condition is the awarding of a feature game.

35 64. The method of claim 63, wherein the main game is a standard game normally offered on the console and the feature game is a jackpot game associated with a special jackpot prize.

65. The method as claimed in any one of claims 61 to 64, wherein the trigger condition is determined by selecting a random number from a predetermined range of numbers to be associated with each main game, and allotting to the game a set of numbers selected from the predetermined range of numbers, the size of the set of allotted numbers being related to the wager bet on the respective game, and in the event that one of the numbers allotted to the game matches the randomly selected number, indicating that the trigger condition has occurred.

5 66. The method of claim 65, wherein the predetermined random number range is related to the desired average turnover on the console between 10 successive initiations of the feature game divided by the credit value for that console.

67. The method of claim 65 or 66, wherein the set of allotted numbers includes a number for each credit bet on the game.

15 68. The system of claim 65, wherein the predetermined random number range is equal to the desired average turnover on the console between successive initiations of the feature game expressed as a currency denomination.

69. The system of claim 68, wherein the currency denomination is cents.

20 70. The system of claim 68 or 69, wherein the set of allotted numbers includes one number for each unit of the currency denomination wagered on the game.

25 71. The method as claimed in any one of claims 61 to 70, wherein the gaming console allots a block of numbers within the predetermined range to the game.

72. The method as claimed in claim 71, wherein the gaming console allots the block of numbers containing the lowest numbers in the predetermined range to the game.

30 73. The method as claimed in any one of claims 61 to 72, wherein the feature outcome is a simplified game having a higher probability of success than the main game.

35 74. The method as claimed in claim 73, wherein the feature game provides a plurality of pseudo-reels with a restricted number of different symbols on each reel and a jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

75. The method as claimed in claim 74, wherein the feature game provides 3, 4, or 5 pseudo-reels with 2, 3 or 4 different symbols on each reel and a jackpot is activated if after spinning the reels the same symbol appears on a win line of each reel.

5 76. The method as claimed in claim 74 or 75, wherein the symbols are of equal value and equally weighted on each reel.

77. The method as claimed in any one of claims 74 or 75, wherein the prizes are of unequal value and the symbols have different weightings on at least one reel.

10 78. The method as claimed in any one of claims 61 to 77, wherein one or more gaming consoles are associated with the system, each of which is connected to a gaming network and includes signal output means arranged to produce an output signal in response to operation of the respective console, such that a central feature jackpot system connected to the network provides an incrementing jackpot pool, the method including increasing the jackpot pool in response to signals from the connected consoles and when the feature jackpot game on each machine awards a jackpot drawing the jackpot from the jackpot pool.

15 79. The method as claimed in claim 78, wherein the jackpot pool is incremented with each game played on each gaming console in the system.

20 80. The method as claimed in claim 78, wherein the jackpot pool is incremented with each token bet on each game played on each gaming console in the system.

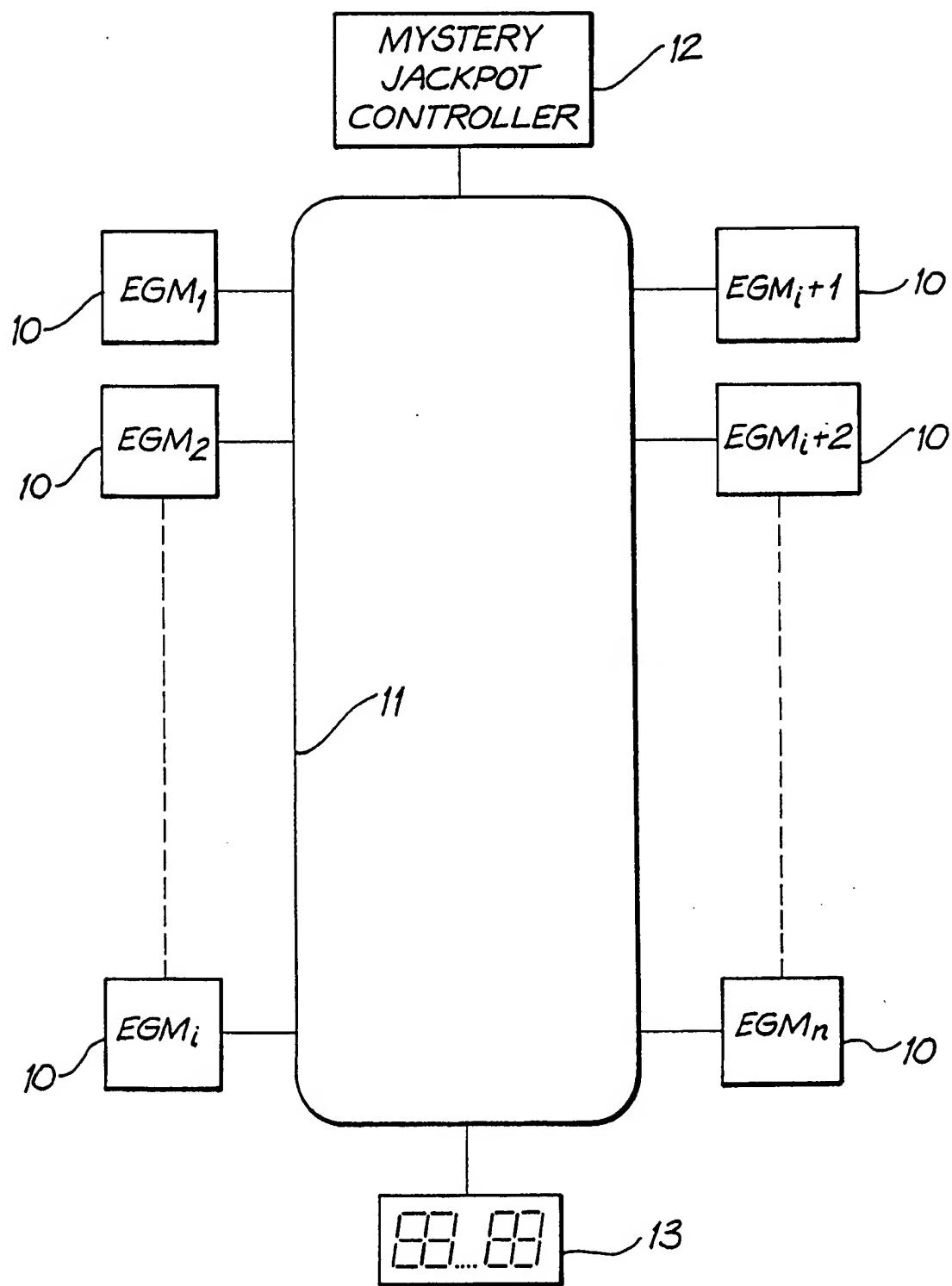


FIG. 1

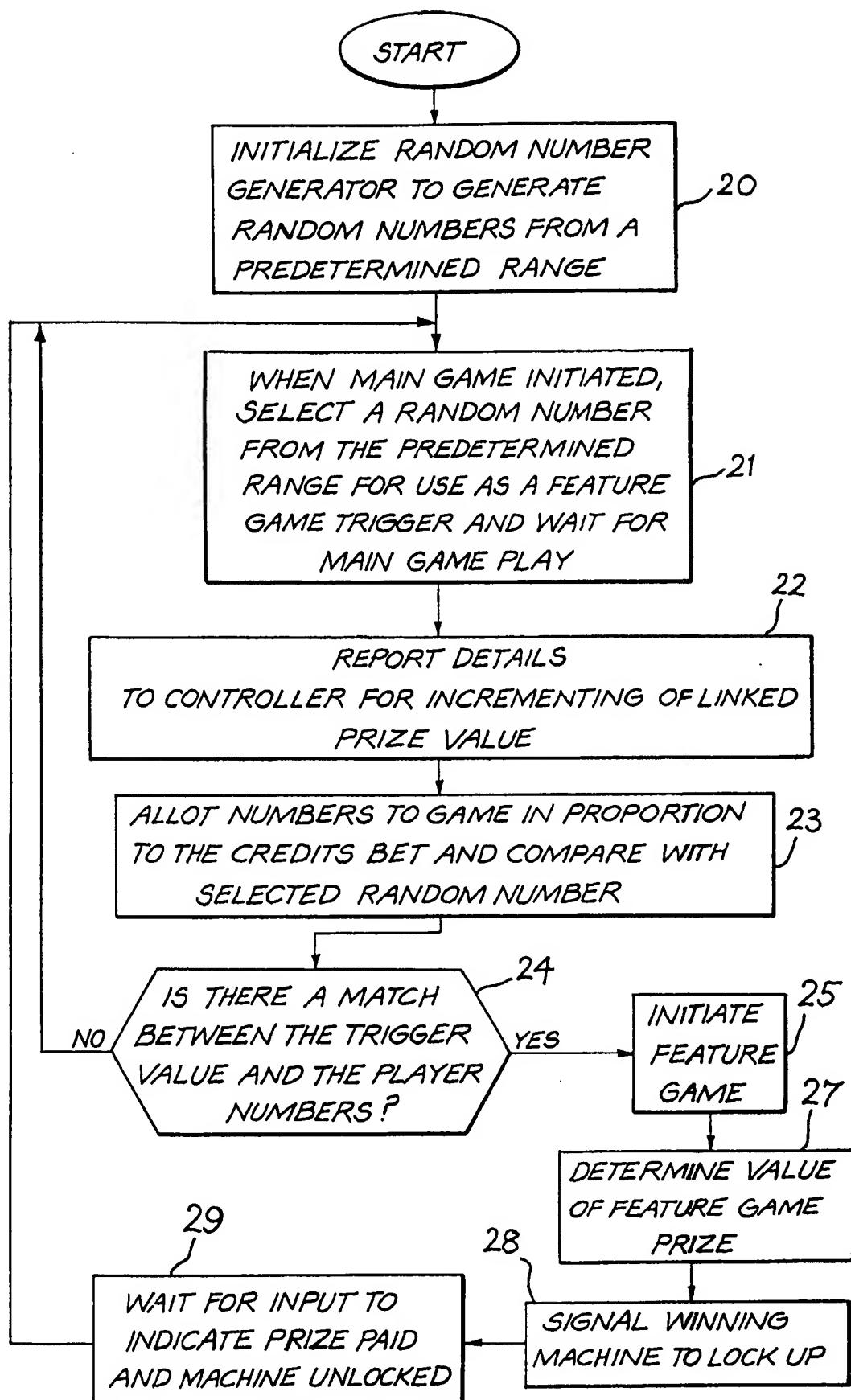


FIG. 2

20	11	11	3	7
12	10	18	13	22
9	12	13	24	9

Figure 3

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/AU 98/00525

A. CLASSIFICATION OF SUBJECT MATTER

Int Cl⁶: G07F 17/34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC G07F 17/34Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
AU: IPC as aboveElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPAT/JAPIO: Trigger, touch off, set off, prize, award, payment, jackpot, payout, start.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB, 2153572 A (Arthur Edward Thomas Limited (United Kingdom)) 21 August 1985	
A	AU, 53370/86 (589158) B (FRANKOVIC et al) 14 August 1986	
A	AU, 33868/89 (628330) B (KABUSHIKI KAISA UNIVERSAL) 16 November 1989	

 Further documents are listed in the continuation of Box C See patent family annex

* Special categories of cited documents:	
"A" Document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier document but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
30 July 1998

Date of mailing of the international search report

11 AUG 1998

Name and mailing address of the ISA/AU
AUSTRALIAN PATENT OFFICE
PO BOX 200
WODEN ACT 2606
AUSTRALIA
Facsimile No.: (02) 6285 3929

Authorized officer

M.E. DIXON

Telephone No.: (02) 6283 2194

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No.
PCT/AU 98/00525

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
GB	2153572	EP	148001				
AU	33868/89	EP	342797	JP	1288289	US	4964638

END OF ANNEX